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U.S. Patent and Trademark Office

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DETAILED ACTION

Introduction

1. The following is a non-final office action in response to the communications received on October 2, 2001. Claims 1-20 are now pending in this application.

Information Disclosure Statement

2. The examiner has reviewed the patents and articles supplied in the Information Disclosure Statements (IDS) provided on October 2, 2001 and April 1, 2002.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 4. Claims 1-13 and 15-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Bengston (U.S. Patent No. 6728947).

As per claim 1, Bengston teaches:

A workflow management system for hosting process-based tasks and decisioning, the workflow management system comprising:

a compiled program kernel containing multiple differentiated tasks defined as separate functions with the compiled program (see column 4 lines 45-65 and figures 3, 6, and 7; where the system processes steps and functions of a

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workflow. The reference invention is a software component enabling the processing of the workflow. Figure 3 displays one of the plurality of functions that are part of the reference invention.);

a graphical interface having a list of geometric shapes and a workspace, each geometric shape being an abstracted object-based representation of functions within the compiled program kernel, the workspace for organizing and linking multiple geometric shapes in a sequential arrangement of objects, the sequential arrangement of objects corresponding to an order in which the multiple differentiated tasks are performed by the compiled program kernel (see column 6 lines 26-67, column 7 lines 1-29, and figure 2; where a workflow designer can create or edit a workflow. The functions are represented by icons. The designer can create a workflow by organizing and assembling the icons. The designers screen is split, where one portion is reserved for displaying the plurality of icons and the remaining portion available to be used as workspace. The designer can drag-and-drop the icons on to the workspace to create the workflow.); and

a database for storing the arrangement of objects as a checklist (see column 9 lines 55-67, column 10 lines 1-34, and figures 2 and 3; where processes and workflows can be saved to RAM or to disk in various forms.).

As per claim 2, Bengston teaches:

The workflow management system of claim 1, further comprising:

administrative tools for accessing a stored checklist, the administrative tools capable of altering parameters associated with each geometric shape in the

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stored checklist (see column 7 lines 5-67, column 8 lines 1-37, and figure 2; where a process editing tool allows a user to configure the parameters of the steps and functions of the workflow.).

As per claim 3, Bengston teaches:

The workflow management system of claim 1, wherein multiple checklists may be stored in the database (see column 9 lines 55-67, column 10 lines 1-34, and figures 2 and 3; where processes and workflows can be saved to RAM or to disk in various forms.).

As per claim 4, Bengston teaches:

The workflow management system of claim 1, wherein the graphical interface permits dynamic alteration of the ordered arrangement of objects in the stored checklist without restarting the system and without recompiling the compiled program kernel (see column 7 lines 5-67, column 8 lines 1-37, and figure 2; where a the process editing tool allowing a user to configure the parameters of the steps and functions of the workflow is web-enabled and built using java. The system creates new files with the workflow definitions provided by the designer. The creation of files does not require that the system, application server, or web server be restarted.).

As per claim 5, Bengston teaches:

The workflow management system of claim 1, wherein the graphical interface is web-enabled, such that a remote user can access the graphical interface to modify the ordered arrangement of objects in the stored checklist (see column 4 lines 66-67, column 5 lines 1-45, column 6 lines 4-25, and figure 1 and 2; where the system

uses a communications channel that is connected to the Internet. The editing device can be enabled in any web browser such as Netscape Navigator or Internet Explorer.).

As per claim 6, Bengston teaches:

The workflow management system of claim 1, further comprising:

an automated messaging system for communicating action items with registered users in the system, the messaging system being Internet-based (column 14 lines 16-40; where parameters can be adjusted such that email message, a phone call, or a paging message can be sent to defined users regarding the status of action items of the workflow.).

As per claim 7, Bengston teaches:

The workflow engine of claim 6, wherein the automated messaging system includes electronic mail (column 14 lines 16-40; where parameters can be adjusted such that email message, a phone call, or a paging message can be sent to defined users regarding the status of action items of the workflow.).

As per claim 8, Bengston teaches:

A workflow system for programmatically managing dynamic workflow processes, the workflow system comprising:

a workflow engine for performing task list processing, the workflow engine being a software component containing a plurality of discrete functions (see column 4 lines 45-65 and figures 3, 6, and 7; where the system processes steps and functions of a workflow. The reference invention is a software component

enabling the processing of the workflow. Figure 3 displays one of the plurality of functions that are part of the reference invention.); and

a workflow designer for configuring task lists, the workflow designer having an object-based interface for drag-and-drop creation of task lists, the workflow designer having a display window divided into a function list and a workspace, the function list containing multiple symbols, each symbol corresponding to at least one of the plurality of discrete functions within the workflow engine, the workspace providing a graphical area for assembly of ordered task lists, the workflow designer allowing for assembly of ordered tasks by dragging and dropping one of the multiple symbols into the workspace, the workflow designer provides graphical links for assembling an ordered task list from multiple discrete symbols (see column 6 lines 26-67, column 7 lines 1-29, and figure 2; where a workflow designer can create or edit a workflow. The functions are represented by icons. The designer can create a workflow by organizing and assembling the icons. The designers screen is split, where one portion is reserved for displaying the plurality of icons and the remaining portion available to be used as workspace. The designer can drag-and-drop the icons on to the workspace to create the workflow.);

wherein the workflow engine performs discrete functions in an order determined by the ordered task list (see column 4 lines 45-65, column 6 lines 26-67, column 7 lines 1-29, and figures 2, 3, 6, and 7; where the system performs the discrete functions ordered and listed in the workflow by the workflow designer.).

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As per claim 9, Bengston teaches:

The workflow system of claim 8, wherein the workflow designer is Internet-based and wherein the function list and the workspace are accessible using an Internet browser (see column 4 lines 66-67, column 5 lines 1-45, column 6 lines 4-25, and figure 1 and 2; where the system uses a communications channel that is connected to the Internet. The editing device can be enabled in any web browser such as Netscape Navigator or Internet Explorer.).

As per claim 10, Bengston teaches:

The workflow system of claim 8, further comprising:

a workflow setup utility for configuring parameters within the checklist (see column 7 lines 5-67, column 8 lines 1-37, and figure 2; where a process editing tool allows a user to configure the parameters of the steps and functions of the workflow.).

As per claim 11, Bengston teaches:

The workflow system of claim 10, wherein the workflow setup utility is webenabled (see column 7 lines 30-58; where the process editing tool is a java applet that can be embedded in a web browser.).

As per claim 12, Bengston teaches:

The workflow system of claim 8, further comprising:

a messaging system for programmatically prompting a user to take action (see column 13 lines 45-67; where the system prompts the workflow designer to input the observing addresses).

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As per claim 13, Bengston teaches:

The workflow system of claim 12, wherein the messaging system generates a digital message (see column 13 lines 45-67; where the system prompts the workflow designer to input the observing addresses. The prompt to the user is a digital message on the screen.).

As per claim 15, Bengston teaches:

A system for programmatically rendering a process-based decision, the system comprising:

administrative tools for creating process categories and checklists associated with each process and for modifying decision parameters in each checklist (see column 7 lines 5-67, column 8 lines 1-37, and figure 2; where a process editing tool allows a user to configure the parameters of the steps and functions of the workflow.);

a decision database for storing the process categories, the checklists and the decision parameters (see column 9 lines 55-67, column 10 lines 1-34, and figures 2 and 3; where processes and workflows can be saved to RAM or to disk in various forms.);

a workflow engine for automatically processing input and generating an instant decision based on the processed input, the workflow engine capable of securely transmitting the instant decision to a remote user, the workflow engine capable of brokering communications between the remote user and a process administrator associated with the instant decision (see column 11 lines 56-67,

column 12 lines 1-24, and column 14 lines 16-40; where processing devices receive an input from another processing device or from the initiating device. The processing device evaluates the information in the workflow file and executes any necessary steps. The processing device then transmits is evaluation to the necessary resource (e.g. if the workflow input dictates that the processing device print information, this decision and the information to print is sent to the printer, if the workflow input dictates that the next process step needs to be executed by another device, the processing device transmits all necessary information to the following device for further processing). Parameters can be adjusted such that email message, a phone call, or a paging message can be sent to defined users regarding the status of action items of the workflow.; and

a messaging system for routing communications between the remote user and the process administrator, the messaging system providing a digital record of programmatic transactions (column 14 lines 16-40; where parameters can be adjusted such that email message, a phone call, or a paging message can be sent to defined users regarding the status of action items of the workflow.).

The system of claim 15, further comprising:

As per claim 16, Bengston teaches:

a user interface for entering user information (see column 8 lines 3-22; where a user can set the parameters for a process definition where the parameters include user information such as personal identification number, pager number, phone number, and email address.).

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As per claim 17, Bengston teaches:

The system of claim 15, wherein checklist parameters are modified and new checklists are created dynamically without restarting the system (see column 7 lines 5-67, column 8 lines 1-37, and figure 2; where a the process editing tool allowing a user to configure the parameters of the steps and functions of the workflow is webenabled and built using java. The system creates new files with the workflow definitions provided by the designer. The creation of files does not require that the system, application server, or web server be restarted.).

As per claim 18, Bengston teaches:

A method for workflow processing and programmatic decision-making based on object-based processes stored in memory, the method comprising:

receiving input from a remote source (see column 10 lines 62-67, column 11 lines 1-67, column 12 lines 1-67, column 13 lines 1-9, and figures 1, 4, 6, and 7; where the initiating device transmits a request and the workflow file to the first processing device. The first processing device receives the input from the initiating device.);

determining programmatically an input type according to the received input (see column 10 lines 62-67, column 11 lines 1-67, column 12 lines 1-67, column 13 lines 1-9, and figures 1, 4, 6, and 7; where processing devices scan the workflow file to determine which type of procedure steps need to be executed.); retrieving automatically a stored process checklist from a decision database according to the input type (see column 10 lines 62-67, column 11 lines 1-67,

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column 12 lines 1-67, column 13 lines 1-9, and figures 1, 4, 6, and 7; where the workflow file contains specific process steps and these steps (input types) dictate to the system which set of instructions (checklist) to execute.);

processing programmatically the received information based on parameters associated with the stored process checklist (see column 10 lines 62-67, column 11 lines 1-67, column 12 lines 1-67, column 13 lines 1-9, and figures 1, 4, 6, and 7; where the workflow file contains specific process steps and these steps (input types) dictate to the system which set of instructions (checklist) to execute.);

rendering an automatic decision based on the processed received information (see column 10 lines 62-67, column 11 lines 1-67, column 12 lines 1-67, column 13 lines 1-9, and figures 1, 4, 6, and 7; where the processing device renders a decision as to the next step of the workflow. For example, the processing device can execute the subsequent process step, can automatically write information to the workflow file, or pass the workflow file on to the next processing device.); and

communicating programmatically the automatic decision to the remote source (column 14 lines 16-40; where parameters can be adjusted such that email message, a phone call, or a paging message can be sent to defined users regarding the status of action items of the workflow.).

As per claim 19, Bengston teaches:

The method of claim 18, wherein the step of processing comprises:

querying a remote server for information related to the received input (see column 11 lines 56-67 and column 12 lines 1-24; where the processing device

retrieves a file over the communication channel for information dictated by the input).;

receiving a response containing additional information related to received input (see column 11 lines 56-67 and column 12 lines 1-24; where the processing device receives the file requested. The information file can also be automatically sent to the requesting device without the requesting device making a request.); and

evaluating the received response and the received input according to parameters within the stored process checklist (see column 11 lines 56-67 and column 12 lines 1-24; where the processing device uses the requested information to process the workflow according to the parameters defined by the work flow designer.).

As per claim 20, Bengston teaches:

The method of claim 18, wherein before receiving, the method comprises:

creating a process checklist using an administrative utility, the administrative utility having an object-based, graphical interface wherein an authorized user creates a workflow process by dragging and dropping tasks into a workspace and linking tasks into an ordered sequence (see column 6 lines 26-67, column 7 lines 1-29, and figure 2; where a workflow designer can create or edit a workflow. The functions are represented by icons. The designer can create a workflow by organizing and assembling the icons. The designers screen is split, where one portion is reserved for displaying the plurality of icons and the remaining portion

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available to be used as workspace. The designer can drag-and-drop the icons on to the workspace to create the workflow.);

configuring parameters associated with each task in the process checklist using the administrative utility (see column 7 lines 5-67, column 8 lines 1-37, and figure 2; where a process editing tool allows a user to configure the parameters of the steps and functions of the workflow.); and

storing the process checklist in a decision database (see column 9 lines 55-67, column 10 lines 1-34, and figures 2 and 3; where processes and workflows can be saved to RAM or to disk in various forms.).

Claim Rejections - 35 USC § 103

- 5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bengston (U.S. Patent No. 6728947).

As per claim 14, Bengston teaches:

The workflow system of claim 12, wherein the workflow system can be configured using the process editing tool to execute processes determined by the workflow designer.

Bengston fails to teach:

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The workflow system of claim 12, wherein the messaging system forwards a document to the user for review and action.

Though Bengston does not explicitly teach the messaging system forwarding a document to the user for review and action, the Bengston system can be configured to produce such an action. The Bengston system provides a process editing tool which allows a user to specify the parameters of the process steps defined in the workflow. Bengston provides the example of sending a paging message to a specific user by appropriately defining the process steps (see column 8 lines 3-22). The advantage of forwarding a document to a user for review and action is to facilitate human intervening steps in the workflow. Thus, it would have been obvious, at the time of the invention, to one of ordinary skill in the art to appropriately configure the Bengston system to forward a document to a user for review and action in order to facilitate the intervening human step in the workflow.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following are pertinent to the current invention, though not relied upon:

Berg et al. (U.S. Patent No. 5999911) teaches a workflow manager system that uses drag and drop functionality to create workflow designs.

Gibson et al. (U.S. Patent No. 6006193) teaches a workflow system for the processing of a workflow item and the workflow rules can be implemented while the system is running.

Du et al. (U.S. Patent No. 6041306) teaches a method and system for performing workflow in a flexible workflow management system.

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Randell (U.S. Patent No. 5826020) teaches a system for workflow management that incorporates the use of agents for the processing of the workflow.

Rosenthal et al. (U.S. Patent No. 6311192) teaches workflows in an organization management system.

Basu et al. (Basu, Amit; Blanning, Robert W.; "A Formal Approach to Workflow Analysis", *Information Systems Research*, March 2000, pp. 17-36) teaches a method to implement workflow system by process redefinition and reengineering.

Leymann et al. (Leymann, F.; Roller, D.; "Workflow-Based Applications", *IBM Systems Journal*, 1997, pp. 102-123) teaches a method for reconstructing workflow management systems based on new or modified business processes.

Zhao et al. (Zhao, J. Leon; Kumar, Akhil; Stohr, Edward A.; "Workflow-centric Information Distribution Through E-mail", *Journal of Management Information Systems*, Winter 2000, pp. 45-72) teaches distribution of information, including new releases and memos, through a workflow system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalyan K. Deshpande whose telephone number is (571) 272-5880. The examiner can normally be reached on M-F 8am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KKD kkd SUSANNA M. DIAZ
PRIMARY EXAMINER

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